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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

SEP 7 1929

REPORT FOR THE WEEK ENDING SEPTEMBER 7, 1929.

HAVRE:

The high temperatures which have prevailed for the last six weeks were broken during the past week. With a mean temperature of 72 for the month of August, 1929 shows the highest temperature on record for that month.

On the morning of the 6th the minimum was 24. This is the lowest temperature recorded for the first week in September. This was followed on the morning of the 7th by a minimum temperature of 27. All tender vegetation has been killed including tomatoes, potatoes, and corn. Aside from the garden and truck crops, very little damage was done by the frost. It is hardly probable that there was any injury to potatoes.

Corn is being husked in the field and cut with a corn binder after husking. Yields are going to be quite light with spring plowing much better than fall plowing.

Mr. Louis Vinke, of the Animal Husbandry department at the college, was a visitor at the station on September 4.
Maximum 82; minimum 24; precipitation .17 inch.

JUDITH BASIN:

August made the highest mean temperature ever recorded for this month, also highest absolute maximum temperature. The monthly procipitation of .34 inch was next to the low of .29 inch recorded for this month in 1919. The precipitation from April 1 to August 31 was 5.21 inches as compared to the normal of 10.04 inches.

The first week in September changed abruptly from the high temperature mentioned, to a minimum of 24 degrees on the 5th. This is the lowest temperature ever recorded during the first week in September at this station.

The garden crops were stopped in their growth by frost. Corn and field beans were also retarded. Very little damage has been reported as most field crops are harvested.

JUDITH BASIN, continued:

Corn on the rotations was cut during the latter part of the week. Harvesting of corn varieties will be completed to-day.

Fall plowing on the rotations and preparation for seeding winter wheat was finished during the week.

Hogs were moved to the hogging off lots. Gains were higher on the sweet clover lots than on the alfalfa during the last period. The seasonal returns from these forage crops will be practically equal.

Mr. Louis Vinke, of the Montana Experiment Station, was a visitor during the week.

Maximum temperature 89; minimum temperature 24; precipitation .38 inch.

HUNTLEY:

Cloudy weather and an abrupt drop in temperature during the past week has been a decided change in the climatic conditions that have prevailed for the past two months. Although freezing temperatures were not reached at the station, reports of killing frosts and snow have been received from nearby localities.

Field work has consisted of harvesting beans, sorgo and Sudan grass, manuring plots in the rotations, and fall plowing.

Maximum temperature 96; minimum 34; precipitation Trace.

MANDAN:

Agronomy

With the exception of one day, the past week has been very much cooler, in fact, several days have been cold for this time of year. The temperature dropped to 32 degrees F. on the night of September 5. There was no general killing frost at the station. Garden stuff was killed in spots.

The corn varieties for silage were cut during the week The yield of silage was somewhat better than expected and was as follows, in tons per acre: Pride of the North, 6.4, Rainbow 4.6, Alta 4.3, Mercer 4.0, Payne 3.9, Minn. No. 13, 3.8, Morton Co. 3.6, N.W. Dent 3.5, and Falconer 3.1.

MANDAN, continued:

Agronomy, continued.

The sorgo varieties were also cut and hauled in. The green weights, in tons per acre were, as follows: Red Amber 6.0, Black Amber 5.6, Freid 5.6, Dak. Amber 5.2, Sudan 3.2.

Corn varieties are being cut and will be completed to-day. The silo is being filled with plenty of material available. From the looks of the corn in the field, it did not seem there would be enough outside of the rotations. Seed corn has all been picked; a good supply was obtained.

Maximum temperature 103; minimum 32; precipitation .37 inch.

Cooperative Grazing Experiment

The 30-acre steers are still on their pasture. Their weights have not been checked since the first of the month, but they appear to have lost in weight. The weights are being checked to-day.

Arboriculture

The conifer nursery, irrigated last week, has been cultivated with the power cultivator. Eight pounds of Tartarian maple seed have been picked.

Boxelder and poplar stumps have been dug in the windbreak, preparatory to tree planting next spring.

Notice of acceptance, postponement or cancellation, has been mailed to all men from whom applications were received for planting in spring, 1930.

Horticulture

Compass cherries and several plum varieties were picked during the week. Due to the dry weather and red spider damage, the fruit is generally characterized by small size and poor quality. The fruit in closely planted blocks is especially small and poor.

BELLE FOURCHE:

The past week has been one of extremes in temperature. The first two days were unusually warm, September 1 being equal to the hottest day of the season. The remainder of the week was abnormally cold, with daily maximum temperatures ranging from 43 to 63 and minimum temperatures closely approaching the freezing point during the last two nights. A light frost, sufficient to kill some of the leaves on cucumber and melon vines, occurred the night of September 6.

Sorgo was harvested September 7, and all corn on fall plowing was cut. Corn on all of the remaining plots is sufficiently far advanced to be out of danger from frost injury, and most of that on spring plowing is practically ripe.

Maximum temperature 101; minimum 34; precipitation .50 inch.

ARDMORE:

The week was characterized by wide fluctuations in temperature. On September 1 the temperature reached 101 degrees, the highest point ever recorded in September at this station. On September 6 there was a snow lasting nearly all day. This was the earliest snow on record at the station. Precipitation occurred on five days of the week. All of it came slowly and there was no loss by run-off. Sod was moist to a depth of six inches at the end of the week.

Some harvesting of corn and sorgo was done during the week, but wet weather prevented much field work being done.

The steers on the 150-acre pasture and on the 160-acre rotation pasture were given their final three day weighings and moved to the reserve pasture during the week. This is the first time since the grazing experiment was started that the 150-acre pasture has failed to carry ten head of steers through the entire grazing season.

The gains of the two lots of steers for the 105 days that they were on pasture were as follows:

150-acre pasture	192.2 lbs. gain per head.
160-acre rotation pasture	193.1 " " " "

ARDMORE, continued:

This is the first time in the history of the grazing experiment that the steers on the rotation pasture have made higher gains per head than those on the 150-acre pasture.

Maximum temperature 101; minimum 32; precipitation .97 inch.

CENTRAL GREAT PLAINS FIELD STATION: (Cheyenne, Wyoming)

Staffhouse No. 3 is framed and sheathed, ready for shingling. A bricklayer and plumber were engaged September 4 to build chimneys and install plumbing. A cold rain followed by snow on September 5 made it necessary to suspend, temporarily, work on Staffhouse No. 3. The workmen moved down to the headhouse, and were engaged in ceiling up the walls and laying the upper floor.

Teams were employed graveling the roads about the sheds, and the tractor was used for grading about the staffhouses until the inclement weather halted these operations.

The fencing gang worked September 3, 4 and 5, stringing wire on Section 8.

Mr. Carl Rohwer, Irrigation Engineer, Bureau of Public Roads, came up from Ft. Collins, Colorado, September 5 in connection with the irrigation project at the station, returning to Ft. Collins the 7th.

Professor E. C. Chilcott arrived from Woodward, Oklahoma the evening of September 5, and left for Washington, D. C. early September 7.

A wet snow fell throughout September 7.

Maximum temperature 89; minimum 29; precipitation 1.01 inches.

ARCHER:

The week brought forth some of the extreme weather conditions of the season. The maximum temperature on August 31 was 92 degrees, and on September 6 the maximum was 36 degrees with a minimum of slightly less than 30 degrees. Along with these decreasing temperatures light rains occurred until the night of September 5 when it rained .49 of an inch. A slow falling snow continued throughout yesterday, September 6, and continues at the present time.

ARCHER, continued:

As there is but very little mature corn a severe frost would do a great deal of damage. The wet weather has delayed threshing and stopped the harvesting of the silage crop which was well under way. However, the moisture will stimulate the seeding of winter cereals.

Work at the station has consisted of cutting sunflowers for silage on September 3 and 4. The average yield was five tons per acre. Since the storm started the work has consisted of grinding barley and oats and storing them in the loft of the dairy barn in order to make room for more grain. Repair work on buldings and machinery has also been in progress.

Maximum temperature 92; minimum 30; precipitation .84 inch.

AKRON:

Commencing on September 2, this station has received a measurable quantity of precipitation up to and including the 6th. The sky is overcast with low hanging heavy clouds to-day, September 7, and it is not unreasonable to expect that a measurable quantity will be collected. The heaviest rainfall within any one 24-hour period was 1.07 inches falling between 3:45 p.m., Thursday, September 5 and 7:00 a.m., Friday, September 6. These rains have been of the slow drizzling type accompanied by uncomfortable cool weather. A minimum of 35 was recorded the night of the 6th.

These rains probably put wheat land in the best condition, considering moisture alone, that they have been in during the past nine years. July rainfall was almost double the 21-year average. August rainfall exceeded the 21-year average by approximately one-half inch. Thus far we have already more than the 21-year average for the whole of September.

The rotation corn plots were harvested early in the week and a portion of the winter wheat plots staked ready for seeding. Other work has consisted of odd jobs about the station grounds and buildings, fanning and treating wheat for fall seeding, cleaning out the barn and shop, etc.

Maximum temperature 98; minimum 35; precipitation 1.86 inches.

COLBY:

This has been a rainy and cool week. The first two days were unusually hot for September. Tuesday night there was a very sharp drop in the temperature and it has not gone above 64 since. Precipitation has been recorded on all of the last six days. During the last two days it has been almost continuous though not heavy, and there is no sign of a let up as yet.

The ground is now in excellent shape for wheat seeding, The first time in at least three years. Unless a freeze should follow this rainy spell the sorghums will make a very good yield in spite of being backward on account of the dry weather of the last two months.

Maximum temperature 101; minimum 42; precipitation 1.84 inches.

GARDEN CITY:

The Seventh Annual Field Day was held on September 5. Approximately 200 farmers were present. During the morning a very interesting program was held, judging from the questions asked. The program dealt principally with problems of soil management, wheat and sorghum production for south western Kansas and adapted varieties of seed and the value of good seed.

In the afternoon tours over the station grounds were held, showing the visitors the experimental work being conducted. A number of the Experiment Station staff was present from Manhattan, representing the different departments in the division of Agriculture. Most of the representatives of the College appeared on the program to discuss phases of work pertaining to agriculture of south western Kansas.

Weather conditions have been almost extremes the past week. The fore part of the week hot winds and high temperatures prevailed. Wednesday morning, September 4, the temperature had dropped to 55 degrees. The mercury fell 43 degrees in the previous night. Since Wednesday temperatures have been around 65 for the maximum during the day and minimum reached on Friday night was 45, the coldest night we have had since last April.

GARDEN CITY, continued:

August has been unusually dry, the precipitation for the month amounting to 1.46 inches while the 20-year mean has been 2.40 inches. Ground has been very dry. Some sorghum crops are badly hurt from dry weather, a few not making any grain at all. During the past week we have had 1.31 inches of rain. 1.21 inches fell Friday night, most of which soaked in. Wheat seedbeds are in excellent condition to germinate much of the wheat which has just been seeded in this locality.

TUCUMCARI:

Temperatures have dropped greatly the past week, reminding one that late, small kafir, and well-loaded tiny cotton plants in this locality may have difficulty in maturing. While less than one inch precipitation has been received in the past four weeks, crops do not seem to be suffering so acutely as earlier, the cool temperatures and low evaporation providing some relief.

During the week the M.C. wheat and rye plots were rabbit fenced, broomcorn pulled, all increase crops cultivated, rotation and variety cowpeas hauled, heads bagged, all plots rogued, and tree rows disked. Bird damage to plots has been the most severe in years, for row crops in this vicinity are generally poor and the birds have concentrated to a great extent. Doubt arises as to the value of two cases of shells and a number of 14-hour days spent in bird hunting, for it does not seem possible the damage could have been greater if no attempt had been made to combat the birds.

Wheat and rye seeded August 31 emerged to good stands on B. C. plots September 6.

Visitors of the week included some sixty undertakers, holding the state convention in Tucumcari; Dr. Marion Imes, Senior Veterinary in Charge, Kansas City; Mr. B. R. Britton, U.S. Game Protector, Socorro, New Mexico; and Messrs. John Carter, J. C. Overpeck, and C. A. Wilson, of the A. and M. College, State College, New Mexico.

Maximum temperature 94; minimum 51; precipitation .11 inch. Wind velocity 6.5 miles per hour; precipitation since January 1, 8.61 inches, compared with a 24-year average of 13.27 inches for this period.

DALHART:

September ushered in a decided change in the weather. The first four days of the week were windy, more so than any like period in August, while the last three days have been decidedly cool. Growing conditions for the corn and sorghum crops continued good. Precipitation was recorded on four days of the week. A total of 1.38 inches of rain fell. The large rain of the week came with a recorded precipitation of 1.30 inches. This is all that is needed for this year's crops and really they would be better off, unless extremely unfavorable weather would prevail, if no more rain came.

Milo, except on replanted on listed ground, is about three-fourths colored now. Kafir is beginning to turn. Broomcorn, except the June 15 date-of-seeding, has all been pulled and seeded. Cowpeas are fully made. The cowpea varieties were cut and cocked just previous to the rain. The rotation plots of cowpeas and soybeans will be cut just as soon as the ground is dry enough. All row crops on the station look exceptionally good. The varieties on fallow should make yields higher than usually recorded. Many comments are received or rather heard about the wonderful prospects here this year for a crop. Apparently we are right in the midst of a crop oasis here in the Texas Panhandle. This country is experiencing a land boom and all newcomers rave about the crop prospects. The most of the prospective farmers are from the wheat belt of Kansas, with large numbers also from Oklahoma and East Texas.

Work accomplished during the week included broomcorn pulling, cowpea harvesting, mowing weeds, picking grapes, and wet weather odd jobs.

Maximum temperature 92; minimum 47; precipitation 1.38 inches.
Wind velocity 6.4 miles per hour; evaporation 1.668 inches.

WOODWARD:

This was the day set for our Annual Field Day picnic. However, a heavy rain began falling about five o'clock this morning and continued throughout the day, so the crowd consisted of only about a dozen farm neighbors and a few county agents and extension service workers. Farmers over the country no doubt feel that such a fine rain coming at wheat sowing time is the best picnic that they could have had.

WOODWARD, continued:

Work for the week consisted of disking wheat ground on the newly acquired land as an addition to the Station, roguing kafir for seed, harvesting broomcorn on the Cereal Project, and getting ready for the Field Day.

Maximum temperature 101; minimum 53; precipitation .7C inch. Wind velocity 8.8 miles per hour; evaporation 2.774 inches.

SHERIDAN:

The hot weather continued through the first two days of the week, but since then the weather has been cold and cloudy with rain at intervals. Heavy frost occurred over the most of this section, but tender vegetation on the station has not been injured to date.

Except for plot MCF in the rotations, late plantings of N. W. Dent, some of the late varieties, and some of the earlier ones on ground where the corn is slow in maturing, harvesting of the corn was completed. Minn. Amber sorgo for forage, and seed blocks of Sudan grass and Dakota Amber sorgo were harvested also.

Maximum temperature 98; minimum 33; precipitation .62 inch.

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U. S. DEPARTMENT OF AGRICULTURE

SEP 1 1909

REPORT FOR THE WEEK ENDING SEPTEMBER 14, 1929.

JUDITH BASIN:

The last days of the week were warm and windy. The soil is dry and all streams are very low.

Winter wheat seeding is in progress on good summer fallow land. Some clean stubble fields will also be seeded to this crop. About one-third of the grain acreage in the Basin will be in winter wheat this season.

Winter wheat was seeded on the rotation, tillage and varietal experiments during the week. Winter rye was also seeded. Corn in the shock is drying rapidly and can be weighed soon.

Fall plowing is in progress. Some alfalfa on the forage ground is being plowed under the driest conditions in order to kill this crop.

The early flint corn varieties are producing the best crop. Only the earliest sweet corn varieties are producing small roasting ears this season.

Visitors during the week included Director F. B. Linfield, of the Montana Experiment Station.

Maximum temperature 74; minimum 24; precipitation .23 inch.

HUNTLEY:

Light showers and decidedly colder weather have been the feature of the past week. The first killing frost of the season occurred the morning of September 8. This caused considerable damage to unharvested beans throughout the county and injury to corn, alfalfa and garden crops was more or less severe depending upon the location.

The rainfall of the last few days has aroused interest in seeding winter wheat and a small acreage has been planted. The majority of farmers in this neighborhood, however, are delaying seeding until sufficient rain has fallen to insure moisture for uniform germination and the maintainance of the seedling wheat.

HUNTLEY, continued:

Hogs in the pasture experiment were removed from the sorgo-soybean pasture and placed on the acre plot of corn, the frost having killed the forage remaining on the former pasture. Because of the light crop of ear corn the hogs were allowed to remain on the corn pasture only four days, and were then removed to the dry-lots. Four days proved to be too long on the corn plot as nearly all of the animals lost weight, although there was still a little grain in the field at the close of the experiment.

Maximum temperature 75; minimum 25; precipitation .30 inch.

SHERIDAN:

A severe frost occurred September 9, the first killing frost of the season on the station, frost having occurred over nearby localities the previous week. The remainder of the corn was harvested and beans were pulled immediately after the frost. The beans were only partially ripe. The remainder of the threshing also was completed early in the week, except for sorgo and Sudan grass for seed and the beans, none of which were ready to thresh. Plots in the rotations were plowed for winter wheat, and all of the corn in the rotations, and a part of the varieties, was husked the latter part of the week.

Maximum temperature 76; minimum 26; precipitation .11 inch.

DICKINSON:

The first killing frost of the fall came on the morning of September 8. This was nearly a week earlier than average and was 111 days after the last frost in the spring. Precipitation during the first half of September amounted to only .51 inch. Only .09 inch was recorded during the month of August, which is a new minimum record for the month.

Corn on the rotations was cut September 6 and 7. Some of the plots have about average yields of grain, but the stover yield is low as the corn was very short. The silo was only about half filled by the corn in the increase field.

DICKINSON, continued:

The winter wheat nursery was seeded September 14. Varieties and the wheat and rye on the rotations will not be seeded till later unless the soil is wet by rains.

Maximum temperature 75; minimum 26; precipitation .01 inch.

MANDAN:

Agronomy

The past week has been cool and cloudy. Temperatures were no doubt below normal for this time of year.

Alfalfa seed is ripening slowly. A good seed crop will be obtained if it all ripens.

Fall plowing in the rotations will be completed to-day. The ground is very dry and hard, making plowing slow and difficult. It took about twice as long to do the plowing as usual.

The few root crops produced were dug during the week.

Corn in the breeding block was picked early in the week. A very poor seed crop was obtained.

Maximum temperature 78; minimum 33; precipitation none.

Cooperative Grazing Experiment

The 30-acre steers were moved to the reserve pasture on the 13th. They lost 26 pounds per head during the 15-day period. Steers in the other pastures made a gain during the same period. The total gain per head of the 30-acre steers for the 120 days on their pasture was 118 pounds. This is the second lightest gain since the experiment started.

The dam on the reserve pasture has been dry for several days. There is still a small water hole below the dam that will supply the cattle for a few days.

MANDAN, continued:

Horticulture

Picking of mid-season varieties of plums has been in progress throughout the week. Fair to good crops have been obtained where the trees are spaced a fair distance apart, but the fruit is valueless in closely planted formations. Native varieties of plums are yielding well in the variety test orchard.

The usual propogations of geraniums, coleus and other tender bedding plants have been in progress during the week. Some 300 cuttings of this class have been put away in the greenhouse. So far, only light frosts have occurred, and the flowerbeds and grounds are still a blaze of bloom.

Vegetables have been harvested right along. Tomatoes and melons are about finished with root-crops, squashes and pumpkins yet immature. Therewas an unusually good yield of melons both water and musk. Size and quality ranged from medium to very good. A new variety of water melon tested for the first time at the station, Burpee's Luscious Golden Sweet, proved especially desirable, early, good size, and meltingly sweet. Flesh a deep golden orange with few seeds.

Arboriculture

The remainder of the boxelder stumps in the north main wind break have been taken out and hauled away. All thistles on the ends of nursery fields have been removed preparatory to digging trees with the tree plow.

A field count has been made of all evergreens available for distribution next spring. The trees will not be dug until spring.

A search has been made for boxelder and ash tree seed in the Mandan vicinity. Seed of these two species is very scarce this year in this locality the boxelder being a complete failure and only a small quantity of ash seed found up to the present.

ARDMORE:

The weather during the week was cool with three periods of precipitation. A frost on September 9 did some damage to crops in the immediate vicinity of the station, and heavy damage in the Black Hills and in the vicinity of Harrison, Nebraska.

Field work was possible on four days during the week.

The harvesting of corn and sorgo was finished. Husking corn from the main rotation plots started on the 12th. Forty plots were husked during the week.

Preparation of plots for the seeding of winter wheat and winter rye was finished on the 13th.

Maximum temperature 74; minimum 31; precipitation .70 inch.

CENTRAL GREAT PLAINS FIELD STATION: (Cheyenne, Wyoming)

Tomatoes and other tender vegetation were killed by the frost September 9.

Shingling the roof and walls of staffhouse No. 3 was completed. The window and door frames were put in and the two chimneys and fireplace were built. Insulating material is being put on the inner walls to-day.

The roughing-in plumbing work is about completed in the headhouse. During the inclement weather the carpenters worked in this building and have finished ceiling up the walls with fir flooring except a portion of the ceiling.

The teams have stripped an additional area about the gravel pit and have been hauling gravel to the greenhouse site.

Rye was sown on the earth over the storage cellar on September 11.

The tractor has been used in breaking ground along the west line of Section 16 for shelterbelt planting.

Maximum temperature 69; minimum 28; precipitation .70 inch.

ARCHER:

During the week the weather has been cool. The snow of September 6, 7 and 8 was followed by a rather severe frost the night of September 8. Corn, tomatoes, squash and beans were frozen. A large number of young weeds were killed by the frost. Potatoes, sunflowers and millet survived without injury.

Work at the station has consisted of pulling beans and harvesting corn. The corn in the dairy field is being put in the silo. All the Dry-Land and varietal corn plots in the experimental field have been cut and shocked. Considerable seed corn has been selected.

Mr. and Mrs. Victor H. Florell visited the station September 13. Mr. Florell, of the Cereal Office, was a former Superintendent of this station.

Maximum temperature 70; minimum 28; precipitation .70 inch.

AKRON:

The rains reported last week continued until September 8. On the morning of the 9th a minimum of 31 was recorded, marking the first light frost of the fall. The frost was of sufficient intensity to kill melon vines, tomatoes, and like tender vegetables but apparently did but little damage to the more resistant plants.

The recent rains mark a very unusual weather phenomonon at this station. Rain was recorded on seven consecutive days for a total precipitation of 2.19 inches. The 21-year average monthly precipitation for September here is only 1.48 inches. These rains give the winter wheat farmer of this region the most hopeful outlook for a crop that he has enjoyed for many a year.

The rotation, and the sheep rotation fields and plots were seeded this week-end. The rotation rye plots were also seeded. Wheat seeded September 1 in the rate and date experiment emerged promptly on the 12th. The harvesting of row crops is progressing.

Dr. Robertson and Mr. Deming were down from the College during the week seeding the small grain nursery.

Maximum temperature 74; minimum 31; precipitation .39 inch.

NORTH PLATTE:

Low temperature and frequent showers have prevailed since September 4. Several light frosts have occurred, but the injury so far to vegetation has been confined to the tips of very tender plants. Rain since September 1 totals 2.50 inches. Soil is in excellent condition for seeding fall grain. The chief station activity during the week has been the filling of silos.

GARDEN CITY:

Weather conditions the past week were rather varied. The fore part of the week was cool and rainy. The latter part has been windy without very high temperatures. Some of the milo and kafir plots are beginning to go down. The weather has been favorable for maturing sorghum crops. Many of the milo plots will be cut in the next few days.

During the past week a number of the early maturing plots were cut. These included plots in the MC series, manured milo and some of the plots in rotations which followed kafir or were on poorer methods of seed bed preparation. All the broomcorn was pulled the past week. Feterita on fall plowed ground was cut while Feterita on fallow will not be cut for at least ten days yet.

The MC corn plots were cut with the exception of corn on fallow and the listed plots. Yields will be rather short this year on account of the hot, dry weather the latter part of the summer. Probably they will about average what the plots have been yielding over a 17-year period.

A few station men in Kansas who made the Sorghum tour of the southwest stopped Saturday and looked over the dry land work and the State work.

Wheat which was planted August 20 is just coming up after the rains of the last week and the fore part of this week. Wheat seed beds are in good condition to plant this fall. Sufficient rain fell that germination should be good. A total of 1.95 inches of rain has fallen the last ten days, most of which came slow and was readily absorbed.

Maximum temperature 81; minimum 39; precipitation .34 inch.

TUCUMCARI:

Temperatures have dropped unusually low over the entire Southern Great Plains the past week, with a large amount of cloudy weather. The September average mean temperature for this station is 70, while that the past week was 62 degrees.

Station crops have revived considerably as the result of small showers and cool weather, but it appears probable that Sunrise kafir in rotations planted May 24 will not fully mature. Much of this has headed only within the past week or two. Dwarf Yellow milo is maturing normally, but drought and bird damage will result in less than an average yield. A number of grain sorghum varieties planted May 31 may only partially mature, as development was so retarded during mid-summer.

The writer returned yesterday from Lubbock, where the Sorghum Tour party disbanded, after traveling approximately 1000 miles, starting Monday noon. Those of the party who have returned via the Tucumcari Station include Mr. Martin, Washington, D. C.; Messrs. Sieglinger, Locke, and Van Horne, of the Woodward Station; Messrs. Hallsted, Aicher, Swanson, Savage, and Johnson, of the Hays Station; Mr. B. F. Barnes, of the Dalhart Station; Mr. J. F. Brandon, of the Akron Station; Mr. J. B. Kuska, of the Colby Station; Messrs. von Trebra and Wagner, of the Garden City Station; and Mr. John Carter Jr., Clayton, New Mexico, with whom the writer made the trip. Mr. R. E. Getty, formerly of Hays, now farming in northern Kansas, was among those who made the complete circle from Hays through Oklahoma, Texas, and New Mexico.

Maximum temperature 88; minimum 42; precipitation .31 inch. Total precipitation for the year 8.92 inches, compared with the 24-year average of 13.63 inches.

DALHART:

The weather remained quite cool during the week. All sorghums made good progress towards maturity nevertheless. With the exception of the last date of seeding sorghum varieties they (the varieties) are fast reaching maturity. Of course, the later maturing varieties on the second date are not nearly out of frost danger, but there are very few heads on the earlier varieties that are not well colored. Yields very much above average for all varieties are expected.

DALHART, continued:

Harvesting of cowpeas was continued during the week. There are a few more plots to harvest. Grape picking was continued. There now remains but one variety to pick. All yields of grapes were high and the quality was good with very little bird damage.

Several station men from the adjoining states visited the station at the end of the Sorghum Tour or else at the beginning. These official visitors were included in the station visitors for the week: Professor S. C. Salmon, Professor H. H. Laude, and Mr. I. K. Landon, of the Kansas Station, Supt. L. C. Aicher, Mr. A. L. Hallsted, Mr. Johnston, Mr. Savage, and Mr. A. F. Swanson, of the Hays Station, Mr. J. B. Kuska, of the Colby Station, Mr. J. F. Brandon, of the Akron Station, Supt. F. A. Wagner and Mr. R. L. von Trebra, of the Garden City Station, Mr. John Carter, of the New Mexico Experiment Station, Mr. D. R. Burnham, of the Tucumcari Station, Mr. John Seiglinger, Mr. L. F. Locke, and Mr. Van Horne, of the Woodward Station, and Mr. R. E. Getty, formerly with the Hays Station.

Maximum temperature 81; minimum 40; precipitation .11 inch.
Wind velocity 5.4 miles per hour; evaporation 1.070 inches.

BIG SPRING:

Climatic conditions have improved considerably during the past two weeks; the temperature has moderated considerably and several rains have soaked the soil up in good shape. One downpour of 3.58 inches washed the station roads considerably and also washed out several bridges in this vicinity. This rain together with several others during the past ten days netted 5.10 inches. Although these rains will help the late planted feed crops, they were too late to increase the cotton yields to any extent; although size of boll and length of fibre should be increased.

Station work has consisted of heading milo plots and picking cotton in the dates and varieties. Several wire baskets were made for storing milo heads during the rainy spell.

Mr. W. M. Osborn, of the Lawton Field Station, and Mr. J. H. Martin, of the Cereal Office, were station visitors during the week.

Maximum temperature 98; minimum 63; precipitation 5.10 inches.

LAWTON:

The droughty period of 45 days extending from July 20 to September 3, inclusive, was broken by a rainfall of .92 inch on September 4. Precipitation has been recorded on nine dates from September 4 to 15, making a total of 4.43 inches for the month to date. The total precipitation for August was .31 inch.

The high temperatures of August have been sharply reduced by the early September rains. There were 16 days in August when the maximum temperature ranged from 100 to 106. Since September 5 the range in maximum temperatures has been from 63 to 86, while the minimum for the same period has varied from 54 to 67.

These beneficial climatic changes that have been so badly needed are too late for feed crops. Some benefit will accrue to cotton in that maturity will be a little more nearly normal. Cotton yields, however, will be confined to bolls that are already pretty well developed.

Preparation of ground for small grains has been greatly facilitated. The destruction of volunteer grain, the final preparation of seed beds, and seeding will likely go forward as rapidly as the weather will permit.

WOODWARD:

Since the rain of last week the weather has been cool and more or less cloudy a good part of the time.

Most wheat land over the country is in excellent condition for seeding, and considerable acreage will be drilled during the next week. Sorghum crops are recovering somewhat from the drought and are maturing normally.

Station work for the week consisted of harvesting cowpeas, harvesting broomcorn on the Cereal Project, seeding orchard and vineyard to wheat as a cover crop against soil blowing, repairing roads for washouts, and hauling gravel for new buildings to be erected soon.

About twenty specialists interested in sorghum work at various experimental stations met at this station the early part of the week, and after spending a day looking over the sorghums here started on a tour over the sorghum belt in general. Messrs. Sieglinger and Locke of this station accompanied the group on the tour.

WOODWARD, continued:

Dr. Husman, of the Pomological Office, spent to-day at this station inspecting the cooperative variety vineyards.
Maximum temperature 85; minimum 51; precipitation 2.31 inches.
Wind velocity 5.2 miles per hour; evaporation 1.142 inches.

NOTE: On the morning of September 9, 1929, Professor E. C. Chilcott arrived at his Washington headquarters after being engaged in the field for several months. On the evening of September 20, he left Washington again for the Central Great Plains Field Station, Cheyenne, Wyoming.

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WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

SEP 21 1929

REPORT FOR THE WEEK ENDING SEPTEMBER 21, 1929.

HUNTLEY:

The past week has been somewhat warmer than was the previous one. This condition has been favorable for drying third cutting hay and such fodder crops as corn and sorgo. Garden crops not entirely killed by the freeze of a week ago continue to make some growth, and tomatoes, melons and sweet corn are still being gathered.

The continued drought is causing much concern among farmers who had planned to seed a considerable acreage of winter wheat this fall. Some seeding has been done "in the dust" but many farmers are waiting for rain before they plant and no doubt some of the land will finally be held over for spring crops, rather than risking sowing it to fall grains.

Seedbed preparation for fall grains was completed on the dry-land fields early in the week and the final planting of winter wheat and rye is being done to-day. All seedbeds were very dry and many of them unusually rough and cloddy. Fall plowing for spring crops is still under way.

Maximum temperature 90; minimum 34; precipitation .07 inch.

SHERIDAN:

Fair weather prevailed over the most of the week, the last three days being quite warm. Seeding of fall grain, with the exception of the later dates-of-seeding and of rye in the pastures, was completed. Fall plowing of the rotation plots also was completed, with the exception of a few plots. The ground is about as hard and difficult to plow as it has ever been here. With the tractor two-way plow, however, the plots have been plowed better than has been possible in other years under these conditions, although in some spots on a part of the plots it was possible only to skin the surface. Husking of corn also was completed, except for a few shocks.

Maximum temperature 93; minimum 34; precipitation none.

MANDAN:

Agronomy

The past week has been cloudy, with only one or two clear days. The temperature dropped to 25 degrees F. on the night of September 17. This was the first real killing frost of the season. Nearly all vegetation was killed. Alfalfa pods that were still green were no doubt killed by this frost.

Fall plowing was completed during the week and furrows in the fall listed plots were opened.

Alfalfa for seed is being cut to-day, September 21. There will be some good seed produced on the station. The crop would have been much better if there had been good ripening weather during the early part of this month.

Maximum temperature 86; minimum 25; precipitation none.

Cooperative Grazing Experiment

It has been necessary to give the cattle on the reserve pasture access to the 100-acre pasture, so they can get water. All the water holes in the reserve pasture have dried up.

Arboriculture

The week has been spent in measuring height growth of trees in the shelterbelt combination and part of the specie testing blocks. A considerable decrease in height, due to killing last winter, has been found in all poplar and willow species, and to a lesser extent, in boxelder.

Horticulture

Severe frosts damaged late maturing varieties of plums, but apparently caused no injury to apples and crabs. Some varieties of plums were damaged considerably more than others. Ripe varieties suffered less damage than varieties that were still quite green.

All apples and crabs in the variety test blocks and cultural blocks have been picked. Some of the late varieties of plums yielded very well, due to a heavy set of fruit, but the size and quality were not up to standard. Virginia crabs yielded fairly well and the quality was good where the trees were spaced a good distance apart.

MANDAN, continued:

Horticulture, continued.

Wide spacing of trees showed up to decided advantage this year. Fruit in closely spaced plantings was poor in quality and of small size. Much of it was of no value whatsoever.

BELLEFOURCHE:

Cool, windy weather has prevailed during most of the week, but a couple of days were unusually warm. A frost, sufficient to nip the leaves of potatoes, occurred September 19. No precipitation was received, and the soil is much drier than it has been for several years. The soil was so dry and hard on corn stubble plots which were plowed during the week that the ground turned up in huge hard lumps, and plowing was very difficult. Winter wheat and winter rye were seeded, but none of the seed, even on fallow land, will germinate until precipitation is received.

Mr. D. A. Spencer, of the Bureau of Animal Industry, visited the station several days.

Maximum temperature 89; minimum 30; precipitation none.

ARDMORE:

Cool weather continued throughout the greater part of the week with the maximum temperature rising considerably on Friday and Saturday, September 20 and 21.

Sudan grass fields planted for silage and hay was harvested on the 19th. The yield was approximately three-fourths ton per acre green weight.

The fall plowing of plots was finished on the 18th. Winter wheat and winter rye plots were seeded on the 17th.

Maximum temperature 86; minimum 34; precipitation .03 inch.

CENTRAL GREAT PLAINS FIELD STATION: (Cheyenne, Wyoming)

Carpenters have been engaged during the week insulating staffhouse No. 3 and putting on plaster board. The front steps and porch slab is finished. An electrician began wiring the building September 16. Plasterers began work the 19th; a brown coat has been applied to the living room in the headhouse and to the upper floor of staffhouse No. 3.

Teams have been engaged during the week hauling gravel to the site of the greenhouses and grading about the buildings.

A tractor was used in breaking ground for shelterbelt plantings along the western edge of Section 16 during the week.

Mr. J. L. Emerson arrived from Mandan, September 17.

Mr. Wm. DuBois, collaborator and architect, went over the work September 18.

Professor E. C. Chilcott arrived from Washington, D.C., September 21.

Maximum temperature 82; minimum 36; precipitation none.

ARCHER:

The weather has been warm and dry, which made it suitable for field work. The work has consisted of putting up silage. There remains one more day's cutting of sunflowers which will finish the major silage work. The large tile silo is practically full of corn silage, and the cement silo will be about full of sunflower silage. It is planned to fully fill both silos from small fields of corn and sunflowers.

The winter wheat on fallow, in the east end of Laramie County, is in very good shape. A great deal of stubble land is being worked with disk harrows and seeded to this crop. On the whole the season has produced rather light yields of small cereals, but the corn crop is very good.

Maximum temperature 84; minimum 33; precipitation none.

AKRON:

The relatively few weeds remaining from the earlier drive have grown under the unusually ample moisture conditions until the station again presents a weedy appearance. Unworked stubble land has the heaviest weed growth noted at this time in the fall that it has had within the past several years.

The weather has warmed appreciably since the frost of last week and the grain sorghums are again progressing towards maturity. These crops were apparently not injured by the minimum temperature of 31 which proved devastating to cucumbers, melons, and such like tender vegetation.

Grasshoppers are very numerous and may damage the fall seeded grains. However, there is an unusual amount of volunteer grain everywhere and this may prevent damage to the seeded crops. A close watch will be kept with the idea of scattering poison bran should damage to the experiments be noted.

The remainder of the experimental corn was harvested during the week. The remainder of the experimental seedings of wheat and rye were also completed, except the later dates of the Rate and Date Experiment. Winter wheat seeded on the sheep rotation fields has emerged to perfect stands.

Dr. John H. Martin spent Wednesday, September 18, at this station in the interest of grain sorghum work.

Maximum temperature 83; minimum 36; precipitation none.

NORTH PLATTE:

The week has been cool but killing frost has not occurred. There has been considerable cloudiness and a few light showers. These did not interfere with field work.

All wheat and rye on the station including D.L.A. plots, varieties and nursery were seeded during the week. Soil moisture conditions are good and a good germination is looked for on all methods of seedbed preparation. Volunteer grain has given a good deal of trouble, and thistle growth on land not tilled since harvest is very heavy.

Potato harvest has been in progress for the past two days. Some very good yields have been made under irrigation, but the dry land yield is light.

COLBY: Report for the two weeks ending September 21, 1929.

The week ending September 14 was rather wet, cloudy and unusually cold. Practically no field work was possible the entire week. This week has been variable with precipitation threatening but none falling. The temperatures have been rather extreme, ranging from 88 to 41 in less than 24 hours. Part of the time it has been extremely windy, too. On the whole it has been favorable for field work. The corn on plots to be seeded to winter wheat was cut, the beans pulled, and the late plowing was done preparatory to seeding. All the winter wheat and rye plots were seeded on the 18th. Never has the ground been in better shape for seeding. There is not, however, an over-abundance of moisture.

The summer fallow plot of corn has fair ears but the rest of the corn plots are almost a failure. The pinto beans did not have any pods at all this year, the second time since being grown on this station.

The feterita plots are ripening up fairly well, but the milo and kafir are not much more than well headed and will probably not mature unless frost holds off longer than it feels like it will.

For the week ending September 14, Maximum temperature 83; minimum 39; precipitation 1.29 inches.
For the week ending September 21, Maximum temperature 88; minimum 41; precipitation none.

TUCUMCARI:

The week has been characterized by comparatively cool, rather cloudy weather. Milo is maturing fast, a number of cotton bolls are opening, many drought stricken corn stalks have fallen, while many kafir plots seem doomed to immaturity.

During the week considerable Sudan grass and cowpeas were harvested, broomcorn was pulled, cowpea seed picked, clay hauled to roadways, and other odd jobs performed. Harvesting of the variety corn block was begun yesterday, September 20. Yields of both grain and stover will be exceptionally low. Grain is not mature, but harvest is necessary, due to excessive lodging.

Maximum temperature 90; minimum 48; precipitation .06 inch.
Total precipitation from January 1 to date, 8.98 inches, making this the driest year on record.

DALHART:

Field work for the week consisted in finishing of harvesting the cowpeas, plowing plots, seeding wheat and rye plots, also areas around plantings to rye, finishing picking of grapes, picking a cowpea variety, finish pulling broomcorn, and other miscellaneous jobs. Corn is just mature enough to cut. Milo is fast turning, the earlier plots are mature. Pinto beans are mature enough to harvest.

The seedbed for seeding the rye and wheat plots had sufficient moisture so that good emergence is expected on early prepared seedbed. There is a possibility that the late plowed plots could dry out before emergence. It was noticed to-day, September 21, that rye seeded Monday afternoon, September 16, is showing emergence. The surface soil was rather hard on the early worked seedbeds so that pressure was required to get the wheat well covered.

Visitors during the week included Dr. John H. Martin, in Charge of Grain Sorghums, U.S.D.A., and Mr. H. N. Vinall, in Charge of Forage Sorghums, U.S.D.A.

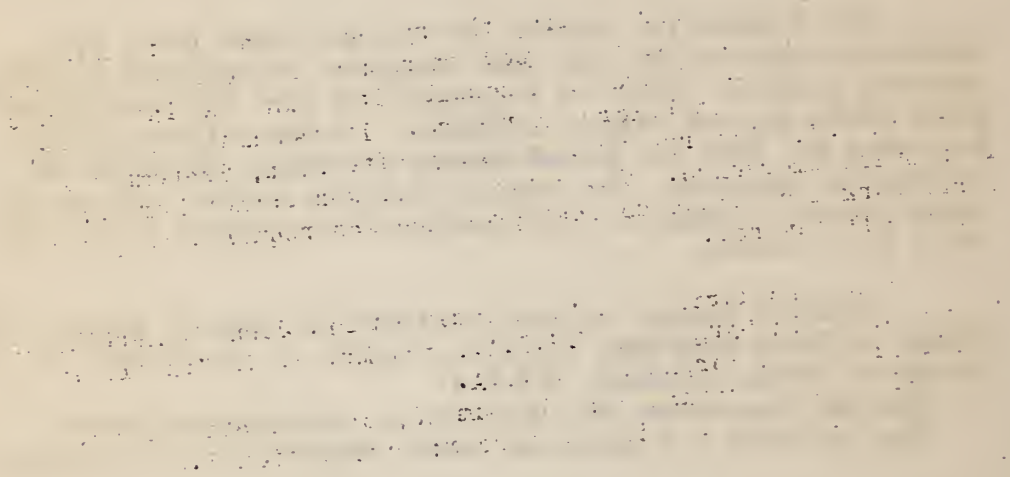
Maximum temperature 88; minimum 45; precipitation none.
Wind velocity 5.4 miles per hour; evaporation 1.516 inches.

BIG SPRING:

A slow drizzling rain, which netted .33 inch, fell on Monday, September 16. This rain soaked the ground up to such an extent that cotton picking was delayed for the first two days of the week. The remainder of the week has been very favorable for all kinds of field work. Cotton picking throughout the county is getting well under way. Although the cotton crop in this county is going to be rather short this year most all farmers have gotten out a few bales.

Station work this week has consisted mainly of heading milo plots and picking cotton. The roadways and fence rows were seeded down to wheat as control measures for soil blowing.

Maximum temperature 86; minimum 58; precipitation .33 inch.



HAYS:

The weather was damp and cool during the first part of the week, but dry and windy the last of the week. Temperature ranged between 47 and 85 degrees.

Recent rains started a new crop of volunteer wheat on all wheat stubble plots being prepared for another crop of wheat. It is such that it is necessary to give practically all the wheat plots another surface working before sowing. The one-way disk is being used only deep enough to cut out the volunteer and this work is closely followed with packer. It is leaving the ground in apparently excellent condition for seeding and it is believed and hoped the surface is not so fine but what it will resist soil blowing.

On September 20 another date of the lister, plow, one-way, chisel experiment for wheat was executed. Also the plots slated for late plowing for wheat were plowed during the week. All of the plots late plowed turned in excellent condition, recent rains having moistened the soil to a depth below that of plowing. These plots will drill nicely and should give prompt germination, but there is a layer of stubble, weeds and volunteer a few inches under the surface which, in addition to dry soil a few inches below, may furnish discouragement to the new crop in time unless climatic conditions continue favorable.

A recent trip over a part of the Plains section, from Lubbock to Tucumcari via Amarillo, then to Dalhart across western Oklahoma and southwestern Kansas called to attention very forcibly the fact that within very recent years,(the last three or four years) most of the level sod land (and unfortunately some of the rolling land) has been broken and a very large part of it is sown to wheat. Generally all over the Plains, due to recent rains, the top or surface soil is in excellent condition. Wheat is coming up nicely, and the prospects look very promising. Whether or not there is sufficient moisture in the soil below the first foot to warrant such a vast acreage of wheat is not known.

LAWTON:

Clear skies, moderate temperatures, and low wind velocity prevailing the past week have been beneficial to the maturity of cotton. Picking of the crop has also gone forward under favorable conditions.

A little late harvesting of grain sorghums was also completed recently. The first date of winter oats, four varieties, was planted September 19, and the winter barley date of seeding test was started September 19.

Seedbeds for wheat on the rotation plots were either spring-toothed, harrowed, or disked on the 20th and 21st. Soybeans in the nursery project were harvested on the 19th. Of the 58 varieties planted, the majority will yield a pretty good tonnage of forage but seed production is practically a failure on all varieties.

Precipitation none.

NOTE:

Under date of September 24, 1929, Mr. F. E. Meloy, Assistant in Charge of Property, writes, as follows:

"I have just received a memorandum from Mr. Ashley enclosing copy of letter received by him from the Eastman Kodak Company, Rochester, New York, in which this latter firm states that in March of this year they received one camera, 3A Film Plate Premo No. 6561 which came to them without letter of instructions or any other means of identification. This firm insists that this camera belongs to this Department.

It is requested that you advise the undersigned at once whether or not this camera was sent by your office to the Eastman Kodak Company for repairs."

If any of the stations of this office forwarded the camera in question, kindly advise this office.

U. S. Department of Agriculture

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE

SEP 28 1929

REPORT FOR THE WEEK ENDING SEPTEMBER 28, 1929.

JUDITH BASIN:

A general storm has occurred over Central Montana during the past week. Precipitation was recorded on five days with a covering of snow reaching into the Basin and remaining a short time. Snow still remains in the mountains.

This storm is very favorable for the winter wheat crop, a large portion of this crop having been seeded before the storm. The total acreage to be seeded in the Basin will show an appreciable increase over the 1928 seeding.

Winter wheat seeded on the rotation and tillage methods is just emerging. Other experiments will also emerge with good stands as all winter wheat seeding with the exception of the date of seeding experiments was completed prior to the storm.

Fall plowing and harvesting of potatoes is completed. Potato yields were low.

The hogging off experiments were finished. Cows were also brought into the sheds.

Maximum temperature 61; minimum 31; precipitation 1.41 inches.

HUNTLEY:

The greater part of the past week has been cloudy and rainy. Enough rain has fallen to penetrate winter wheat seed beds to the depth of seeding under most conditions, but more moisture will be needed to produce uniform stands and insure satisfactory winter survival.

Fair weather of a week ago dried out hay and other harvested forage crops and air dry weights were taken on corn, sorgo, Sudan grass and soybeans. Miscellaneous fall plowing has been carried on between showers during the last few days and should be completed to-day.

Maximum temperature 73; minimum 37; precipitation .98 inch.

DICKINSON:

Rain fell on four days of the week, amounting to 1.13 inches. Mild temperatures continued through the week.

Winter wheat and rye were seeded on the rotations on September 25, and the winter wheat varieties on the 27th.

Fall plowing on the rotations was done on the 26th to 28th. Although a little dry soil was turned up in spots a far better job of plowing was done than would have been possible before the rains.

Husking of corn on the rotations was started.

Yields of potatoes in 1929 were the lowest obtained at this station since 1926 and were only about two-thirds of the average for the varieties during the past 12 years. The best of 15 strains of Cobblers grown in the variety test made just 100 bushels per acre of U. S. No. 1. Ohios made nearly as much as the Cobblers, and Triumphs less than either of these. U. S. Seedling No. 41914, which was the highest yielding variety in both 1927 and 1928, produced almost no marketable tubers.

Cobbler potatoes grown in the rotations made only 75 bushels of marketable tubers on fallow in Rotation 414, and 105 bushels on spring plowed wheat stubble in Rotation 415. The lower yield on fallow was in part due to baking of the soil after flooding during a hard shower on June 14.

Recent visitors included Director P. F. Trowbridge, Mr. C. N. Ainslie, Bureau of Entomology, Sioux City, Iowa, and Mr. R. L. Shotwell, Bureau of Entomology, Billings, Montana.
Maximum temperature 82; minimum 34; precipitation 1.13 inch.

MANDAN:

Agronomy

The past week has been rainy. Rain was recorded on five consecutive days. The greatest amount in 24 hous was .49 of an inch, the most that has fallen in 24 hours since May 30. As it fell slowly, all soaked into the ground. Rain was general over North Dakota.

No field work was done during the week.
Maximum temperature 78; minimum 38; precipitation 1.18 inches.

MANDAN, continued:

Cooperative Grazing Experiment

No water was collected in the dam from the rains of the past week. There was no runoff.

Arboriculture

The wet weather has prevented much field work. Measuring of trees in the Species Testing blocks, and Pruning experiments, have been done when weather permitted.

Horticulture

Owing to the prevalence of Mosaic disease, all raspberries are being pulled up and destroyed. Seeds, more particularly plum, are being prepared for winter storage.

Beets and cabbage have been harvested during the week.

Visitors included Mr. R. L. Shotwell, Cereal and Forage Insects, U. S. D. A., Billings, Montana, and Professor C. N. Ainslie, Western Cutworms, Sioux City, Iowa.

ARDMORE:

Cool, rainy or misty weather prevailed throughout the week. There were two thunder storms; one accompanied by hail.

Very little field work was done. Other work consisted of general cleaning up and repairing the pens at the beef cattle shed.

The feeder pigs were taken off the pasture experiment and shipped to Manhattan during the week. The average weight per head was 105 pounds.

The beef cattle were shipped to Omaha on September 27. The average weight per head was 947.5 pounds.

Maximum temperature 87; minimum 43; precipitation .89 inch.

CENTRAL GREAT PLAINS FIELD STATION: (Cheyenne, Wyoming.)

Carpenters have finished putting plaster board in staffhouse No. 3, and putting in windows and front porch. The first coat of plaster has been applied throughout and the upper floor has received the finishing coat with exception of the bathroom and hall. The cement floor has been run in the basement with the exception of the laundry room, and the coal chute was put in. The electric wiring is finished and the plumber is about ready to set the fixtures.

A ventilating cupola has been placed in the storage cellar, and the electric wiring is finished.

Windows and doors have been put in the headhouse (rolling overhead type of door in the west entrance). The cement floor has received its finishing coat.

The tractor has bladed out a road to Roundtop reservoir. Teams have continued grading through the week and irrigation ditches as laid out by engineers of the Bureau of Public Roads have been plowed out. The septic tank ditch has been extended 600 feet, and drain tile is on the ground ready to put in.

Professor E. C. Chilcott left for Tucumcari, New Mexico, September 24.

Mr. A. L. Roberts, of the Sheridan, Wyoming, Field Station, was a visitor September 27.

Maximum temperature 76; minimum 41; precipitation .05 inch.

ARCHER:

The weather has been mild and rather humid with fog and heavy dews. However, this has not materially interfered with station work.

The work has consisted of finishing the cutting of corn and sunflowers and the seeding of winter wheat on the Dry-Land plots. Seed corn has been gathered, and a considerable quantity of barley has been ground to make room for the 22 tons which has been bought. Peas and beans have been threshed and everything is in readiness to continue threshing or haul the millet hay from the dairy field.

Maximum temperature 79; minimum 38; precipitation .04 inch.

AKRON:

The fore part of the week was clear and favorable for the maturing of the row crops, but the later part was cool and the sun was obscured by fog.

All winter wheat seedings except that on the rate and spacing corn project are fully emerged and they show the best stands secured within recent years. Wheat seeded on the rate and spacing corn project is emerging spottedly this week-end.

Work has consisted largely of clean-up jobs about the station and of repairing some of the pasture fences. The variety bean experiment was pulled. Attempt was made to thresh the variety millet experiment but the damp nights and foggy forenoons during the later part of the week prevented.

Mr. D. W. Deming and Mr. Wayne Austin from the College were here Saturday making the fall count on the cereal small grain nursery.

Maximum temperature 90; minimum 45; precipitation .05 inch.

GARDEN CITY:

The past week very little work was done on the dry land project. A few soybean varieties in rows planted for observation were harvested. They give indications of producing a heavy crop of seed and some will yield a large amount of forage. The cow-pea varieties in rows have been harvested and some of them threshed. California blackeye and Holstein have been partly threshed out and are producing a large amount of seed and hay.

Weather conditions the past week have been very drying and we have put off seeding of wheat in hopes of getting some rain. Some of the plots, such as early fall listed which had to be curled in before planting are dry on the surface, enough to make germination and growth a little bit slow if seeding was done now. We have had a few days of rather high wind the past week, and evaporation took a lot of surface moisture. Average wind velocity the last seven days was 10 miles per hour. Last Sunday and Monday it averaged 16 miles per hour.

Maximum temperature 92; minimum 51.

HAYS:

Heavy southerly winds prevailed during the first three days of the week. This was followed by .93 inch rain during the night of the 25th. The rain was local but very heavy on the dry-land project, while on the east part of the experiment station it was possible to drill wheat the following day. On the dry-land project the soil will be too wet to drill until Monday or Tuesday, September 30 and October 1.

The generally very fine top soil condition encouraged early seeding with the result that practically all the wheat in this section has been seeded and most of it up or now coming through the ground.

A Mr. Price who operates a large farm in the Amarillo area and who now has 20,000 acres prepared for wheat visited the project to-day, also several car loads of high school students from Alton , Kansas, spent considerable time on the project.

TUCUMCARI:

A start toward harvest was made this week, when MC sorgo, several forage sorghum variety plots, and the remainder of all cowpeas and Sudan were cut. In addition, a number of the May 15 date-of-planting grain sorghum plots and several milo plots in rotations were headed. Early planted cotton plots and the early maturing varieties in the single row test have been picked once.

Weather has been very mild and warm, the first half of the month being considerably colder than the past two weeks. Crops are in most instances either ripening or firing to some extent. Much Sunrise kafir planted May 25 still is in danger of being frosted when far from mature.

Professor E. C. Chilcott arrived from Cheyenne September 25, while Mr. E. F. Chilcott arrived September 27. They left for Amarillo, Texas, September 28.

Maximum temperature 92; minimum 57; precipitation .10 inch.

This season has been the lowest on record in seasonal precipitation and only .02 inch higher than 1918.

Inches precipitation.

	Jan. 1--Sept.28	Apr. 1--Sept.28	June 1--Sept.28
24-year average	14.44"	12.91"	9.03"
1929	9.02	6.61	3.50

DALHART:

The past week has been quite favorable for the maturing of the grain sorghums. Some of the early plots are now ready for harvest. No grain sorghums have been headed as yet but we expect to start this coming week. The corn plots were all harvested this week. With the exception of the border rows on a few plots the yields of corn should be very good this year. Several varieties of soybeans in the soybean nursery were harvested this week. Almost without exception all varieties of soybeans look good for the type this season. Some of the cowpea variety plots were picked for seed this week.

Most of the work this week consisted of jobs other than field work. It was necessary to fill up coal bins the first of the week. In addition to that there was feed to grind, and one day was quite satisfactorily spent on the well.

Harvest of grain sorghums is going to take all of the working time from now on.

Wheat and rye are emerging now. It is doubtful if satisfactory stands are going to be obtained.

Visitors during the week included Professor E. C. Chilcott, who visited the station a few hours Wednesday while enroute from Cheyenne to Tucumcari, Mr. R. E. Dickson, Superintendent of the Spur, Texas, Station, and Mr. J. R. Quinby, Superintendent of the Chillicothe, Texas, Station.

Maximum temperature 91; minimum 48; precipitation .02 inch.
Wind velocity 6.2 miles per hour; evaporation 1.669 inches.

BIG SPRING:

Weather conditions during the past week have been very favorable for field work. No rain with plenty of warm weather is causing the cotton to open very fast. The dry, hot summer has caused a rather unusual procedure in cotton harvesting this fall. The bolls are so small that many of the farmers are having their entire crop pulled instead of picked. During normal years only the immature bolls, that remain after frost, are pulled.

Station work this week has consisted mainly of picking cotton and disking the orchard and vineyard. Some Salway peaches and Kieffer pears were picked.

Maximum temperature 91; minimum 61; precipitation none.

WOODWARD:

The weather for the past week has been clear and favorable for all field and outdoor work. The bulk of the wheat acreage in this part of the country has been seeded and the wheat is emerging to good stands. Considerable harvesting of sorghum hay crops is being done at present.

Station work for the week consisted of drilling wheat, picking cotton, harvesting broomcorn, running concrete basement for new staffhouse, and assisting Dairy project in filling silos.

Mr. John H. Martin, of the Cereal Office, arrived to-day and is looking over the grain sorghums and other crops.

Maximum temperature 93; minimum 61; precipitation none. Wind velocity 9.0 miles per hour; evaporation 2.004 inches.

BELLE FOURCHE:

Cool, stormy weather has prevailed during most of the week, and there has been an unusually large amount of rain. A total of 3.09 inches precipitation were recorded between September 24 and September 26, and 1.85 inches of this amount were received the night of September 24. Most of the moisture was absorbed by the soil as the ground was so dry and badly cracked that only a comparatively small amount of run-off occurred. The sky continued overcast the latter part of the week and several additional light rains were received. The atmosphere has remained practically saturated since September 24, and very little evaporation or drying has taken place.

Because of the abnormally dry condition of the soil, the rains were of great benefit to fall grain and all non-irrigated land, but the harvesting of sugar beets and potatoes grown on the irrigation project will be seriously handicapped. Unsurfaced roadshave become practically impassible to automobile travel.

Mr. A. C. Cooley, Senior Agriculturist in Charge of Office of Demonstrations on Reclamation Projects, was a visitor at the station.

Maximum temperature 84; minimum 43; precipitation 3.23 inches.